



# MATHS

## BOOKS - SWAN PUBLICATION

### RATIONAL NUMBERS

#### Exercise 9 1

1. Write two equivalent rational numbers of the following :

$$\frac{4}{5}$$



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2. Write two equivalent rational numbers of the following :

$$\frac{-5}{9}$$



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3. Write two equivalent rational numbers of the following :

$$\frac{3}{-11}$$





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4. Find the standard form of the following rational numbers :

$$\frac{35}{49}$$



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5. Find the standard form of the following rational numbers :

$$\frac{-42}{56}$$



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6. Find the standard form of the following rational numbers :

$$\frac{19}{-57}$$



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7. Find the standard form of the following rational numbers :

$$\frac{-12}{-36}$$



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8. Which of the following pairs represent same rational number

$$\frac{-15}{25} \text{ and } \frac{18}{-30}$$



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9. Which of the following pairs represent same rational number

$$\frac{2}{3} \text{ and } \frac{-4}{6}$$



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10. Which of the following pairs represent same rational number

$$\frac{-3}{4} \text{ and } \frac{-12}{16}$$



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11. Which of the following pairs represent same rational number

$$\frac{-3}{-7} \text{ and } \frac{3}{7}$$



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12. Which is greater in each of the following ?

$$\frac{3}{7}, \frac{4}{5}$$



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13. Which is greater in each of the following ?

$$\frac{-4}{12}, \frac{-8}{12}$$



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14. Which is greater in each of the following ?

$$\frac{-3}{9}, \frac{4}{-18}$$



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15. Which is greater in each of the following ?

$$-2\frac{2}{3}, -3\frac{5}{8}$$



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**16.** Write the following rational numbers in ascending order

$$\frac{-5}{7}, \frac{-3}{1}, \frac{-1}{7}$$



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**17.** Write the following rational numbers in ascending order

$$\frac{-1}{5}, \frac{-2}{15}, \frac{-4}{5}$$



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**18.** Write the following rational numbers in ascending order

$$\frac{-3}{8}, \frac{-2}{4}, \frac{-3}{2}$$



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**19.** Write five rational numbers between following rational numbers

$$-2 \text{ and } -1$$



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20. Write five rational numbers between following rational numbers

$$\frac{1}{3} \text{ and } \frac{5}{7}$$



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21. Write five rational numbers between following rational numbers

$$\frac{1}{3} \text{ and } \frac{5}{7}$$



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**22.** Write four more rational numbers in each of the following.

$$\frac{1}{5}, \frac{2}{10}, \frac{4}{20}, \frac{8}{40} \dots\dots$$



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**23.** Write four more rational numbers in each of the following.

$$\frac{-1}{7}, \frac{2}{-14}, \frac{3}{-21}, \frac{4}{-28} \dots\dots$$



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24. Draw a number line and represent the following rational number on it.

$$\frac{2}{4}$$



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25. Draw a number line and represent the following rational number on it.

$$\frac{-3}{4}$$



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**26.** Draw a number line and represent the following rational number on it.

$$\frac{5}{8}$$



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**27.** Draw a number line and represent the following rational number on it.

$$\frac{-6}{4}$$



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## Exercise 9 1 Multiple Choice Questions

1. Multiple choice questions :

$$\frac{3}{4} = \frac{?}{12}, \text{ then } ? =$$

- A. 3
- B. 6
- C. 9
- D. 12

**Answer: C**



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## 2. Multiple choice questions :

$$\frac{4}{7} = \frac{?}{14}, \text{ then } ? =$$

A. -4

B. -8

C. 4

D. 8

**Answer: B**



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### 3. Multiple choice questions :

The standard form of rational number  $\frac{-21}{28}$  is

A.  $\frac{-3}{4}$

B.  $\frac{3}{4}$

C.  $\frac{3}{7}$

D.  $\frac{-3}{7}$

**Answer: A**



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#### 4. Multiple choice questions :

Which of the following rational number is not

equal to  $\frac{7}{-4}$  ?

A.  $\frac{14}{-8}$

B.  $\frac{21}{-12}$

C.  $\frac{28}{-16}$

D.  $\frac{7}{-8}$

**Answer: D**



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## 5. Multiple choice questions :

Which of the following is correct ?

A.  $0 > \frac{-4}{9}$

B.  $0 < \frac{-4}{9}$

C.  $0 = \frac{4}{9}$

D. None

**Answer: A**



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## 6. Multiple choice questions :

Which of the following is correct ?

A.  $\frac{-4}{5} < \frac{-3}{10}$

B.  $\frac{-4}{5} > \frac{3}{-10}$

C.  $\frac{-4}{5} = \frac{3}{-10}$

D.  $\frac{-4}{5} > \frac{3}{-10}$

**Answer: A**



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## Exercise 9 2

1. Find the sum

$$\frac{6}{9} + \frac{2}{9}$$



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2. Find the sum

$$\frac{-15}{7} + \frac{9}{7}$$



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3. Find the sum

$$\frac{17}{11} + \left( \frac{-9}{11} \right)$$



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4. Find the sum

$$\frac{-5}{6} + \frac{3}{18}$$



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5. Find the sum

$$\frac{-7}{19} + \frac{-3}{38}$$



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6. Find the sum:  $\frac{2}{3} + 0$



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7. Find the sum

$$\frac{-5}{14} + \frac{8}{21}$$



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**8.** Find the sum

$$-4\frac{1}{15} + 3\frac{2}{20}$$



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**9.** Find

$$\frac{7}{12} - \frac{11}{36}$$



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**10.** Find

$$\frac{-5}{9} - \frac{3}{5}$$



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**11.** Find

$$\frac{-7}{13} - \left( \frac{-5}{91} \right)$$



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**12. Find**

$$\frac{6}{11} - \frac{3}{4}$$



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**13. Find**

$$3\frac{4}{9} - \frac{28}{63}$$



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**14.** Find the product of

$$\frac{5}{9} \times \frac{-3}{8}$$



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**15.** Find the product of

$$\frac{-3}{7} \times \frac{7}{-3}$$



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**16.** Find the product of

$$\frac{3}{13} \times \frac{5}{8}$$



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**17.** Find the product of

$$\frac{3}{10} \times (-18)$$



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**18.** Find the value of

$$-9 + \frac{3}{5}$$



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**19.** Find the value of

$$\frac{-4}{7} + 4$$



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**20.** Find the value of

$$\frac{7}{11} + \frac{5}{6}$$



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**21.** Find the value of

$$\frac{-8}{35} + \left( \frac{-2}{7} \right)$$



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**22.** Find the value of

$$\frac{-9}{15} + -18$$



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**23.** What rational number should be added to

$$\frac{-5}{12} \text{ to get } \frac{-7}{8} ?$$



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24. What number should be subtracted from

$$\frac{-2}{3} \text{ to get } \frac{-5}{6} ?$$



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25. The product of two rational numbers is

$$\frac{-11}{2}. \text{ If one of them is } \frac{33}{8}, \text{ find the other}$$

number.



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1. The sum of  $\frac{5}{4} + \left(\frac{25}{-4}\right) =$

A. -5

B. 5

C. 4

D. -4

**Answer: A**



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$$2. \frac{17}{11} - \frac{6}{11} =$$

A. 1

B. -1

C. 6

D. 3

**Answer: A**



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$$3. \frac{2}{-5} \times \frac{-5}{2} =$$

A. 1

B. -1

C. 2

D. -5

**Answer: A**



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$$4. \frac{7}{12} + \left( \frac{-7}{12} \right) =$$

A. 1

B. -1

C. 7

D. 0

**Answer: B**



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5. Which of the following is value of

$$(-4) \times [(-5) + (-3)]$$

A. -32

B. 120

C. 32

D. -23

**Answer: C**



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## Other Important Questions

1. Which of the following is not equivalent to fraction  $-\frac{2}{3}$  ?

A.  $\frac{10}{-15}$

B.  $-\frac{8}{12}$

C.  $-\frac{12}{21}$

D.  $\frac{-16}{24}$

**Answer: C**



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2. Which of the following is not a positive rational number ?

A.  $\frac{2}{3}$

B.  $\frac{-3}{-5}$

C.  $\frac{-2}{3}$

D.  $\frac{5}{7}$

**Answer: C**



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**3. Which of the following is a positive rational number ?**

A.  $\frac{2}{-3}$

B.  $-3$

C.  $\frac{-2}{-9}$

D.  $\frac{15}{-90}$

**Answer: C**



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**4. Which of the following is a rational number is standard form ?**



A.  $\frac{-12}{24}$

B.  $\frac{28}{77}$

C.  $\frac{7}{16}$

D.  $\frac{15}{-90}$

**Answer: C**



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5. The value of  $\left(\frac{-9}{16} \times \frac{8}{15}\right)$  is :

A.  $\frac{-8}{25}$

B.  $\frac{-9}{15}$

C.  $\frac{-3}{10}$

D.  $\frac{-2}{5}$

**Answer: C**



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**6.** The product of a rational number and its reciprocal is :

A. 0

B. 1

C. -1

D. None of these

**Answer: B**



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7. Which of the following rational numbers does not lie between - 1 and - 2 ?

A.  $\frac{-11}{10}$

B.  $\frac{-17}{10}$

C.  $\frac{-19}{10}$

D.  $-\frac{3}{5}$

**Answer: D**



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8. The value of  $\frac{3}{13} + \left(\frac{-4}{65}\right)$  is :

A.  $\frac{-12}{65}$

B.  $\frac{-1}{65}$

C.  $\frac{-15}{4}$

D.  $-\frac{1}{5}$

**Answer: C**



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9. Number  $\frac{-3}{5}$  lies on the number line on

A. Right of zero

B. Left of zero

C. Both a and b

D. None of these

**Answer: B**



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**10.** Which of the following rational numbers are less than 1 ?

A.  $\frac{3}{10}$

B.  $\frac{5}{10}$

C.  $\frac{7}{10}$

D. All of above

**Answer: B**



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**11.** How many rational numbers lie between 2 and 3 ?

A. 1

B. 2

C. 3

D. Infinite

**Answer: D**



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**12. Additive inverse of  $(-8 + 3)$  is :**

A. -11

B. 11

C. -5

D. 5



**Answer: D**



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**13.** The number of the form  $\frac{a}{b}$ , where  $a$  and  $b$  are integers,  $b \neq 0$  are called .....



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**14.**  $\frac{-5}{7}$ ,  $\frac{-10}{14}$ ,  $\frac{-15}{21}$  are ..... rational numbers.



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15. Standard form of  $\frac{105}{210}$  is .....

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16. A negative rational number is always .....  
than zero.

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**17.** Sum of rational numbers and its additive inverse is 1.



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**18.** Fill in the blanks :

Product of rational number and its reciprocal is .... .



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19. The sum of  $\frac{3}{7} + \left(\frac{24}{-7}\right) = \dots\dots\dots$



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20. Reciprocal of 1 is .....



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21. A rational number is said to be negative if its both numerators and denominators are negative.



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22. A positive rational number is always greater than zero.



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23.  $\frac{7}{16}$  and  $\frac{-7}{-16}$  represent different rational numbers.



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**24.** 0 is the only rational number which is additive inverse of its self.



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**25.** Reciprocal of 0 exists.



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**26.** Multiplicative inverse of a non-zero rational

number  $\frac{a}{b}$  is  $(-a)/(b)$ .





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